

## IN THE SPECIFICATION

On page 2, please change the background section to read as shown below:

This invention relates to a method of and system for flexibly integrating organization related data, information, and knowledge and systems in accordance with a schema defined by a market value matrix and using said matrix as required to support the analysis, management and optimization one or more aspects of organization risk, return and value directly and indirectly through the use of integrated narrow systems.

On page 2, please change the first paragraph of the summary of the invention to read as shown below:

It is a general object of the present invention to provide a novel and useful system for flexibly integrating the data, information, ~~narrow systems and knowledge bases and systems~~ associated with a multi-enterprise organization into an overall system for measuring, managing and optimizing financial performance. A partial list of the different types of narrow systems is shown in Table 1 below.

Please change the text on pages 4, 5 and 6 to read as shown below:

A preferable object to which the present invention is applied is flexibly integrating the some combination of organization systems, data, information and knowledge used as required for measuring, managing and optimizing the assets, processes, projects and risks associated with the operation of a multi-enterprise commercial organization.

Information systems work best when they are aligned with the goals of the corporation they serve. Given that the goal of virtually every modern corporation is to improve its financial performance and maximize shareholder value, a system that provides a framework for measuring and optimizing financial performance is also an ideal framework for integrating data, information, knowledge and systems. This specific framework can also be used to integrate the information and knowledge from different parts of the organization to formulate budgets and complete long term plans.

In a more general sense, establishing a model that serves as a platform for flexibly integrating some combination of data, information, systems and knowledge from external partners and others in the organization ~~via a knowledge layer~~ is a new and novel way for coordinating, controlling and improving the productivity of knowledge workers. For example, a model for brand development could be established and then data, information, systems and knowledge that support brand development could be flexibly integrated by using the brand development model as the framework for development of an xml schema that directs data, information, systems and knowledge to the appropriate location within the framework. The same process can be used for any cell or cell subcategory within the market value matrix.

An important general feature of the matrix is that its performance generally improves ~~steadily~~ as more narrow systems are integrated. As systems are added, system flexibility is demonstrated by the fact that there is no specific order in which narrow systems need to be integrated. Another aspect of system flexibility is that the narrow systems do not have to be completely integrated in order to improve the performance of the system. If narrow system operators choose to limit the integration to providing access to data from their system, then the system of the present invention can still function effectively.

Integrating data and information from narrow systems and knowledge bases to the framework defined by a market value matrix starts by establishing a standard ontology data dictionary for account numbers, derived data, element of value descriptions, enterprise names designations, external factor descriptions, features, risk descriptions and units of measure for the transaction data and descriptive data stored within each of these systems. The ~~organization standard~~ data dictionary will be used for all data being processed within the system of the present invention so all data extracted for use in the system is first converted to the organization standard data dictionary (if necessary) before being stored or identified in the application database.

After the ~~organization standard for accounts, elements, factors, risks and units of measure~~ data dictionary is established, the next stage in system integration is to define the segments of value and elements of value that define the market value matrix. Commercial businesses can create value in five distinct ways:

1. selling products or services that generate positive cash flow;
2. developing real options for generating positive cash flow in the future;
3. holding investments that produce income and/or capital gains;
4. holding derivatives (broadly defined) that produce income and/or capital gains; and
5. generating positive market sentiment.

These five methods for creating value define the segments of value. When they are added together, the value of these five segments equals the market value of the enterprise or organization.

Separating the segments of value is important for a variety of reasons. Because each segment of value represents a different way to create value, the methods for valuing each segment are different. The risks associated with each of the segments of value are also very different. For example, financial assets like money in the bank and bonds are far more stable than derivatives that are highly leveraged. Derivatives can change in value by many orders of magnitude in an instant. Having said that, it is worth noting that many types of risk can have an impact on every segment of value. For example, catastrophic event risk, like the risk of a large hurricane or terrorist attack, can have an

impact on all segments of value. In a similar fashion external factor variability risk and strategic risk, can impact all segments of value. The impact of element variability risk ~~generally has~~can have less impact on investments and derivatives than the preceding two types of risk. The final type of risk, market volatility is defined as the difference between the overall market risk of equity for the firm (i.e. volatility implied by equity option prices) and the calculated total of the other types of risk.

Because of the critical importance of the different segments of value. The first step in defining the framework for enterprise system integration is therefore defining the segments of value for the enterprise. The list of the segments of value used in the system of the present invention are shown below in Table 4.

Please change the text below Table 8 on page 12 through page 15 to read as shown below:

The categories listed in Table 8 can be expanded or contracted in order to cover all types of risk the company is subject to as well as all the processing completed by the narrow systems.

In addition to using the standard described above for identifying the knowledge bases, data and the information obtained from narrow systems, this same standard is used when processing data and storing the results of system processing. As a result, information can be accessed at any point by anyone in order to determine the financial status of the multi-company organization and/or the companies within the organization. We will refer to data that has the integration identification information attached to it as "tagged data". Clearly tagging all processed data will facilitate the automated delivery of new products and services from financial service providers and other partners.

Implementing the integration method with existing applications can take any of several forms including: pre-programmed templates with specified tag assignments for each narrow system and knowledge base, the use of wizards to guide data tag assignments, extensions to existing xml based standards, the specification of the data tags by knowledge base and narrow system operators in the data they make available for transfer or some combination of the first four options. In one embodiment, the knowledge base and narrow system operators will include the specified tags in the data they make available for transfer and they will identify the matrix cell or cells that their data pertains to in the information made available to others. In one embodiment this information will be integrated with the system of the present invention via a knowledge layer in an operating system and the information and knowledge will be made available to all enterprise systems and to partner systems via the same layer. This integration method can also be implemented by obtaining the required information from databases – physical or virtual – that contain the integrated data.

While one embodiment of the novel system ~~for integrating narrow systems and knowledge~~ analyzes element and external factor impacts on all five segments of value, the system can operate when one or more of the segments of value are missing for one or more enterprises and/or for the organization as a whole. For example, the

organization may be a value chain that does not have a market value in which case there will be no market sentiment to evaluate. Another common situation would be a multi-company corporation that has no derivatives in most of the enterprises (or companies) within the overall structure. The system is also capable of analyzing a single enterprise. As detailed later, the segments of value that are present in each enterprise are defined in the system settings table (140). Virtually all public companies will have at least three segments of value: current operation, real options and market sentiment. However, it is worth noting only one segment of value is required per enterprise for operation of the system. Because most corporations have only one traded stock, multi-enterprise (aka multi-company) corporations will generally define an enterprise for the "corporate shell" to account for all market sentiment. This "corporate shell" enterprise can also be used to account for any joint options the different companies within the corporation may collectively possess. The system is also capable of analyzing the value of the organization without considering ~~all types of risk~~. However, the system needs to complete the value analysis before it can complete the analysis of ~~all organization risks~~.

The innovative system has the added benefit of providing a large amount of detailed information to the organization users concerning both tangible and intangible elements of value by enterprise. Because intangible elements are by definition not tangible, they can not be measured directly. They must instead be measured by the impact they have on their surrounding environment. There are analogies in the physical world. For example, electricity is an "intangible" that is measured by the impact it has on the surrounding environment. Specifically, the strength of the magnetic field generated by the flow of electricity through a conductor turns a shaft in a motor and the torque of the shaft is used to determine the amount of electricity that is being consumed. The system of the present invention measures tangible and intangible elements of value by identifying the attributes that, like the magnetic field, reflect the strength of the element in driving segments of value (current operation, investments, real options, derivatives, market sentiment) and/or components of value (revenue, expense and change in capital) within the current operation and are relatively easy to measure. Once the attributes related to the strength of each element are identified, they can be summarized into a single expression (a vector) if the attributes don't interact with attributes from other elements. If attributes from one element drive those from another, then the elements can be combined for analysis and/or the impact of the individual attributes can be summed together to calculate a value for the element. In one embodiment, vectors

are used to summarize the impact of the element attributes. The vectors for all elements are then evaluated to determine their relative contribution to driving each of the components of value and/or each of the segments of value. The system of the present invention calculates the product of the relative contribution and the forecast longevity of each element to determine the relative contribution to each of the elements of value to each segment of value. The contribution of each element to each enterprise is then determined by summing the element contribution to each segment of value. The value contribution of external factors is determined using the same process described for element evaluation. The organization value is then calculated by summing the value of all the enterprises within the organization

In accordance with the invention, the automated extraction of data from existing narrow systems and knowledge bases significantly increases the scale and scope of the analysis that can be completed. The system of the present invention further enhances the efficiency and effectiveness of the analysis by automating the retrieval, storage and analysis of data and information useful for analyzing elements of value, segments of value and organization risks from external databases, external publications and the Internet. To facilitate its use as a tool for financial management, the system of the present invention produces intuitive graphical reports and reports in formats that are similar to the reports provided by traditional accounting systems. Integrating information from all enterprise systems is just one way the system of the present invention overcomes the limitations of existing methods and systems.

The method for integrating the numerous, narrow business management systems provided by the present invention eliminates the need for custom interface development. ~~#The system of the present invention can also eliminates the need to use six different standards in operating an enterprise wide financial management system. Most importantly the system of the present invention completely integrates all of~~integrate the narrowly focused enterprise systems and knowledge bases into an overall system for measuring, managing and optimizing organizational financial performance. The level of integration enabled by the system of the present invention will also support: the creation of new financial products; the creation of new financial services; the automated delivery of new financial products and services; the automated delivery of traditional financial products and services; and the integration of narrow systems with other applications.



By providing real-time financial insight to users of every system in the organization, the integrated system of the present invention enables the continuous optimization of management decision making across an entire multi-enterprise organization.

Please change the first two sentences of the system integration section on page 27 to read as shown below:

The flow diagram in FIG. 4 details the processing that is completed by the portion of the application software (200) that integrates with some combination of data, information and knowledge from other applications in order to support ~~knowledge integration and~~ organization optimization. As discussed previously, the system of the present invention is also capable of integrating with the narrowly focused systems listed in Tables 1 and 2- to support the implementation of organization optimization.

Please change the text below Table 18 on page 36 through item 1 on page 38 to read as shown below:

The system settings data are used by the software in block 201 to develop a market value matrix for each enterprise in the organization. The market value matrix is defined by the segments of value, elements of value and external factors. The subcategories for each element of value include the element base value, element variability risk, external factor variability risk, event risk, strategic event risk and market risk. The application of the remaining system settings will be further explained as part of the detailed explanation of the system operation. The software in block 201 also uses the current system date to determine the time periods (generally in months) that require data to complete the calculations. In one embodiment the analysis of market value and risk by the system utilizes data from every data source for the four year period before and the three year forecast period after the specified valuation date and/or the date of system calculation. The user (20) also has the option of specifying the data periods that will be used for completing system calculations. After the date range is calculated it is stored in the system settings table (140), processing advances to a software block 210.

~~The~~ In one embodiment the software in block 210 establishes one or more operating system or middleware layers in order to communicate via a network (45) with the different databases (5, 10, 12, 15, 17, 25, 30, 35, 36, 37, 39) that are being integrated within the novel system for integration. Other mechanisms such as integrating the data in a common database can also be used. While any number of methods can be used to identify the different data sources, in one embodiment the systems are identified using UDDI protocols and the systems include information that identifies the cell or cells within the market value matrix that their stored information pertains to as described previously. The data within each database that is available for extraction is tagged as described previously. The software in block 210 operates continuously to extract and store data in ~~the market value matrix in~~ accordance with the xml schema described previously. Processing in the system of the present invention continues in a software block 303 that prepares the extracted data for analysis.

After the system processing described below has been completed, the tagged set of optimized features for each narrow system and the entire market value matrix are sent by a software block 511 back to a software block 210. The software in block 210 uses

one or more operating system layers to make information continually available to the narrow systems, supplier systems and to partner systems that can provide the necessary security information to access one or more of the layers. The information that is available to narrow systems, partner systems and supplier systems via a network (45) includes:

1. Packets containing optimized sets of feature data and customized contextontology data. The optimized feature data will bring the organization closer to the efficient frontier when implemented. The contextontology data in the packets are customized in accordance with the location of the narrow system within the market value matrix. More specifically, the narrow systems are provided with information concerning the portions of the market value matrix that are impacted by the portion of the market value matrix they are analyzing/managing. The statistical information developed in later stages of processing detailed below and stored in the matrix data table (143) is used for quantifying the inter-relationships in order to determine what information needs to be included in each customized data packet. In addition to information about inter-relationships related to value and risk creation, operational data such as inventory position, order status, etc. is also included (note this could be included in a separate packet or accessed separately from a central location). In this way, each narrow system can make an accurate estimate regarding the likely impact on the enterprise and organization of changes in their features; and